

Comparisons of Job Characteristics

Focus Occupation: [Architectural and Engineering Managers \(11-9041\)](#)

Associated Occupation: [Geological and Petroleum Technicians \(19-4041\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 69

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Geological and Petroleum Technicians (19-4041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mathematics	9.2	14.8	17.4	>	Current knowledge level is likely sufficient
Computers and Electronics	8.4	14.4	16.9	>	Current knowledge level is likely sufficient
Engineering and Technology	5.7	12.0	23.2	>>	Current knowledge level is likely more than sufficient
Geography	3.9	11.6	5.7	<<	Extensive education and/or training may be required
Physics	4.3	11.2	13.0	>	Current knowledge level is likely sufficient
Chemistry	4.8	10.7	6.6	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 59

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Geological and Petroleum Technicians (19-4041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Science	4.5	9.8	8.7	<	A higher skill level may be required
Mathematics	6.2	7.8	11.7	>>	Skill level is likely more than sufficient
Troubleshooting	4.5	6.1	2.6	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	4.7	1.0	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 91			
Focus Occupation: Architectural and Engineering Managers (11-9041) Associated Occupation: Geological and Petroleum Technicians (19-4041)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	13.0	15.2	>	Current ability level is likely sufficient
Oral Comprehension	12.5	12.6	15.0	>	Current ability level is likely sufficient
Oral Expression	12.4	12.3	15.0	>	Current ability level is likely sufficient
Near Vision	11.1	11.1	12.5	>	Current ability level is likely sufficient
Inductive Reasoning	10.2	10.7	12.5	>	Current ability level is likely sufficient
Information Ordering	9.9	10.7	12.0	>	Current ability level is likely sufficient
Written Expression	9.8	10.7	13.8	>>	Current ability level is likely more than sufficient
Deductive Reasoning	10.6	10.4	13.9	>>	Current ability level is likely more than sufficient
Category Flexibility	9.0	10.3	11.4	>	Current ability level is likely sufficient
Flexibility of Closure	7.8	9.9	7.9	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	8.4	13.3	>>	Current ability level is likely more than sufficient
Number Facility	6.3	8.4	11.2	>>	Current ability level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 50
Focus Occupation: Architectural and Engineering Managers (11-9041) Associated Occupation: Geological and Petroleum Technicians (19-4041)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Communicate technical information	4	
Direct and coordinate activities of workers or staff	3	
Prepare reports	8	
Read technical drawings	7	
Understand engineering data or reports	48	
Understand technical operating, service or repair manuals	6	
Use scientific research methodology	21	

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 79

Focus Occupation: Architectural and Engineering Managers (11-9041)
Associated Occupation: Geological and Petroleum Technicians (19-4041)

Tools and Technologies	Exclusivity
Business function specific software	1
Chromatographic measuring instruments and accessories	16
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Electrochemical measuring instruments and accessories	9
General laboratory glassware and plasticware and supplies	13
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory decanting and distilling and evaporating and extracting equipment and supplies	19
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4
Water treatment and supply equipment	21

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.